

The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
William A. Hinton State Laboratory Institute
305 South Street, Jamaica Plain, MA 02130

DEVAL L. PATRICK
GOVERNOR

TIMOTHY P. MURRAY
LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD
SECRETARY

JOHN AUERBACH
COMMISSIONER

10/26/2011

Michael McGee
Assistant District Attorney, Norfolk County

Dear ADA McGee,

Enclosed is the information you requested in regards to Commonwealth vs. [REDACTED]
Included are copies of the following:

1. Curriculum Vitae for Annie Dookhan and Kate Corbett.
2. Drug Analysis Laboratory Receipt.
3. Control Cards with analytical results for samples # [REDACTED]
4. Analysis sheets with custodial chemist's hand notations and test results.
5. GC/Mass Spectral analytical data for samples # [REDACTED]

Annie Dookhan was the custodial chemist and performed the preliminary testing and net weight for this sample. Kate Corbett was the confirmatory chemist and analyzed the GC/MS data for this sample.

If you have any questions about these materials, please call me at the number below.

Sincerely,

A handwritten signature in black ink, appearing to read "Annie Dookhan".

Annie Dookhan
Chemist
Drug Analysis Lab
Jamaica Plain, MA. 02130
(617) 983-6622

Curriculum Vitae

Annie Khan (Dookhan)

Education:

University of Massachusetts, Boston, Ma, Master of Science in Chemistry.

University of Massachusetts, Boston, Ma, Bachelor of Science in Biochemistry.

Experience:

2003 – present

Chemist I, II, Massachusetts Department of Public Health, Drug Analysis Laboratory

*Completed six-week training course conducted by senior staff within the Department of Public Health, Drug Analysis Laboratory.

*Appointed Assistant Analyst by Assistant Commissioner of Public Health, 2004.

*Responsible for the identification of illicit drugs to determine violations of harmful and narcotic drug laws.

*Trained in the use of complex analytical instrumentation, microscopes and balances for the purpose of drug analysis.

*Maintenance and repairs of all analytical instruments.

*Responsible for the Quality Control of all analytical instruments, reagents and controls/standards.

*Oversee the Quality Control/Quality Assurance program for the Drug Lab.

*Writing, revising and reviewing Standard Operating Procedures (SOPs) and Protocols.

*Notary Public.

*Qualified as an expert witness in Massachusetts Courts and U.S. District Court

2001 – 2003

QC Analyst I, II, UMMS-Massachusetts Biologic Laboratory, QC Material Control

*Completed proficiency training conducted by a member of the staff within the MLB Quality Control and Quality Assurance Department.

*Method Development for creating new techniques and enhancing vaccines for the QC Dept. and FDA.

*Writing, revising and reviewing Standard Operating Procedures (SOPs).

*Trained and supervised new chemists and interns for the department.

*Routine QC testing of products for the FDA.

*Trained in the use of complex analytical instrumentation, and balances for the purpose of QC analysis for product and validation projects.

*Calibration, preventive maintenance, QC and QA of analytical instrumentation.

*Complete testing of chemicals for Vendor Validation Project for the FDA.

*Compendial testing and interpretation of the USP, ACS, FCC, AOAC, Merck Index, PDR, etc.

Additional Training:

Dept. of Justice – Forensics Professionals. (numerous trainings)

GLP/GMP training with Massachusetts Biologic Laboratory.

QC/QA training according to FDA Codes and Regulations.

GC and GC/MS trainings with Agilent Technologies and Restek.

HPLC and LC/MS/MS trainings with Waters Cooperation.

FTIR training with Spectros.

TOC training with MBL and Sievers.

Association:

American Chemical Society (ACS)

Northeastern Association of Forensics Science (NEAFS)

Curriculum Vitae

Kate A. Corbett

Education

Bachelor of Science Degree, CHEMISTRY May 2003

MERRIMACK COLLEGE

Coursework included: Organic Chemistry, Inorganic Chemistry, Quantitative Analysis, Instrumental Analysis, Physical Chemistry, Physics, Calculus

Employment

Chemist II State Laboratory Institute (March 2008-Present)

Massachusetts Department of Public Health

Drug Analysis Laboratory

- Responsible for the identification of substance and trafficking substances to determine violation of the Massachusetts drug laws
- Responsible for the identification of pharmaceuticals to determine violation of the Massachusetts drug laws
- Operate analytical instrumentation, microscopes and balances for forensic drug analysis

Chemist I State Laboratory Institute (2005-March 2008)

Massachusetts Department of Public Health

Drug Analysis Laboratory

- Responsible for the identification of substance to determine violation of the Massachusetts drug laws
- Operate analytical instrumentation for the purpose of performing forensic drug analysis
- Successfully completed an eight week training course in the analysis of drugs conducted by senior staff of the Department of Public Health, Drug Analysis Laboratory
- Appointed an assistant analyst for the Department of Public Health, Drug Analysis Laboratory in 2005.

Research Associate (September 2003 – August 2005)

SENSOR TECHNOLOGIES, INC - Shrewsbury, MA

- Prepared chemistries used in making sensor beads
- Generated and examined sensors employing fluorescence spectroscopy
- Performed protein, dye and sugar assays using UV/VIS spectrophotometry
- Carried out titrations on ricin using fluorescence correlation spectroscopy
- Statistical analysis of experimental data

Intern (March 2003 – August 2003)

MASSACHUSETTS STATE POLICE CRIME LABORATORY - Sudbury, MA

- Assisted in the gathering of case files to fulfill the National Institute of Justice's No Suspect Backlog Reduction Grant
- Observed in the Evidence, Criminalistics, DNA, Drug, Trace, Toxicology, and Bomb/Arson Units



The Commonwealth of Massachusetts
Executive Office of Health and Human Services

Boston Drug
Laboratory
Tel (617) 983-6622
Fax (617) 983-6625

Department of Public Health
State Laboratory Institute

Amherst Drug
Laboratory
Tel (413) 545-2601
Fax (413) 545-2608

Boston Hours
8:00 – 11:00
2:00 – 4:00

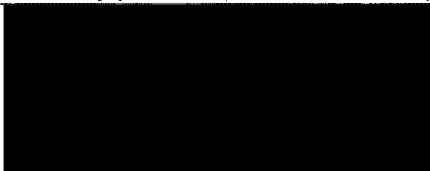
Amherst Hours
9:00 – 12:00
1:00 – 4:00

DRUG RECEIPT

City or Department: RANDOLPH Police Dept Police Reference No.: [REDACTED]

Name and Rank of Submitting Officer: Detective Paul Smyth

Defendant(s) Name (last, first, initial)



| Description of Samples | To be completed by Lab Personnel | |
|---|----------------------------------|------------|
| | Gross Weight | Lab Number |
| 2 pieces of a sandwich bag w/ white residue | 5.41g | [REDACTED] |

Received by: DJF Date: 8/17/10

No. [REDACTED]
City: Randolph Police Dept.
Officer: Detective PAUL SMYTH
Def: [REDACTED]

Date Analyzed: 11/18/10

Amount:

Subst: RES

No. Cont: 2 Cont: pb

Date Rec'd: 08/17/2010

No. Analyzed

Gross Wt.: 5.41

Net Weight:

Tests: SASD
• 2CAC

Prelim: cocaine

Finding:

Cocaine

DRUG POWDER ANALYSIS FORM

SAMPLE # AGENCY Randolph ANALYST A32

No. of samples tested:

Evidence Wt.

PHYSICAL DESCRIPTION:

Residue in 2 pbs

Scraped 1 pb

Gross Wt ():

Gross Wt ():

Pkg. Wt:

Net Wt:

PRELIMINARY TESTS

Spot Tests

Cobalt
Thiocyanate (+)

Marquis -

Froehde's

Mecke's

Microcrystalline Tests

Gold
Chloride +

TLTA (+)

OTHER TESTS

GC+

PRELIMINARY TEST RESULTS

RESULTS cocaine

DATE 11-9-10

GC/MS CONFIRMATORY TEST

RESULTS cocaine

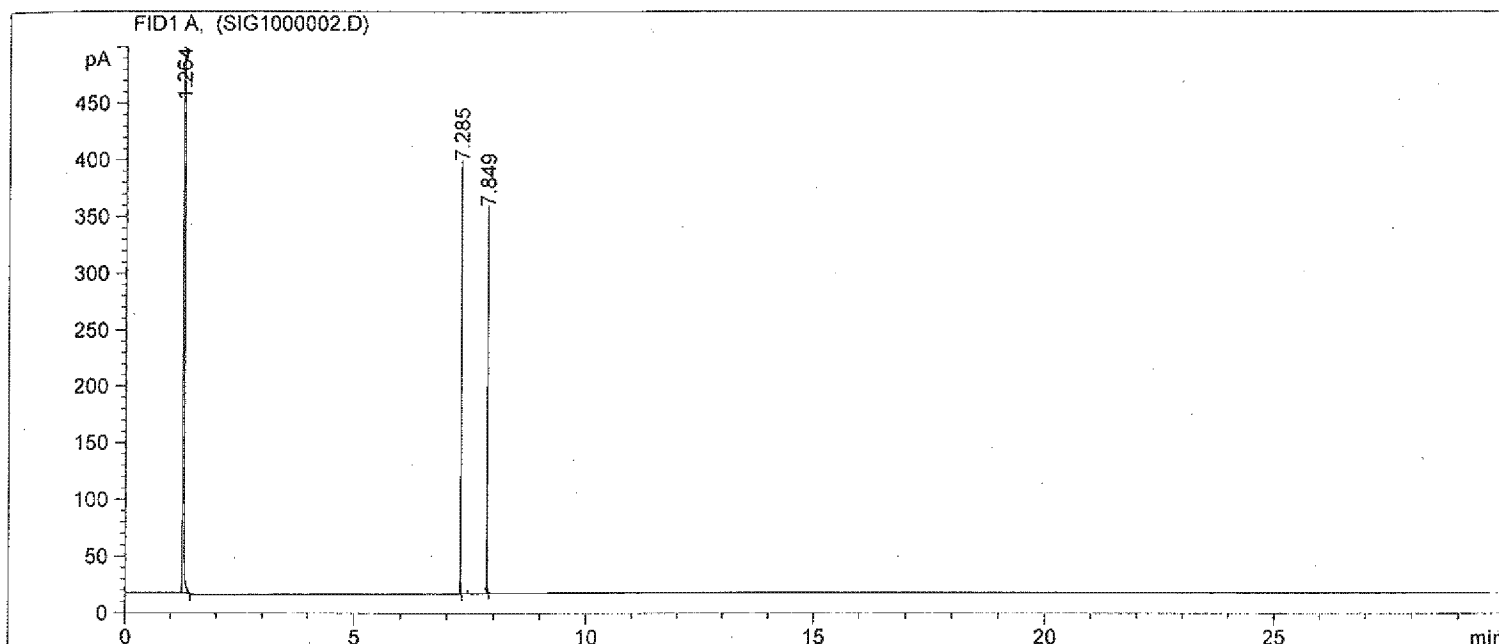
MS
OPERATOR KAC

DATE 11-18-10

File: C:\CHEM32\1\DATA\SIG1000002.D
 Name: COKE/CODEINE STD
 Acq. Operator : ASD
 Acq. Instrument : Drug Lab GC#3
 Injection Date : 11/10/2010 2:13:52 PM

Seq. Line : 2
 Location : Vial 2
 Inj : 1
 Inj Volume : 1 µl

Sequence File : C:\CHEM32\1\SEQUENCE\DEFAULT.S
 Method : C:\CHEM32\1\METHODS\SCREEN.M
 Last changed : 8/3/2010 11:51:05 AM



Area Percent Report

Sorted By : Retention Time
 Multiplier: : 1.0000
 Dilution: : 1.0000
 Sample Amount: : 1.00000 [ng/ul] (not used in calc.)
 Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

| Peak # | RetTime [min] | Sig | Type | Area [pA*s] | Height [pA] | Area % |
|--------|---------------|-----|------|-------------|-------------|----------|
| 1 | 1.264 | 1 | BB S | 8.16027e4 | 7.12794e4 | 99.33404 |
| 2 | 7.285 | 1 | BB | 279.18530 | 377.40555 | 0.33985 |
| 3 | 7.849 | 1 | BB | 267.89630 | 336.74728 | 0.32611 |

Totals : 8.21498e4 7.19935e4

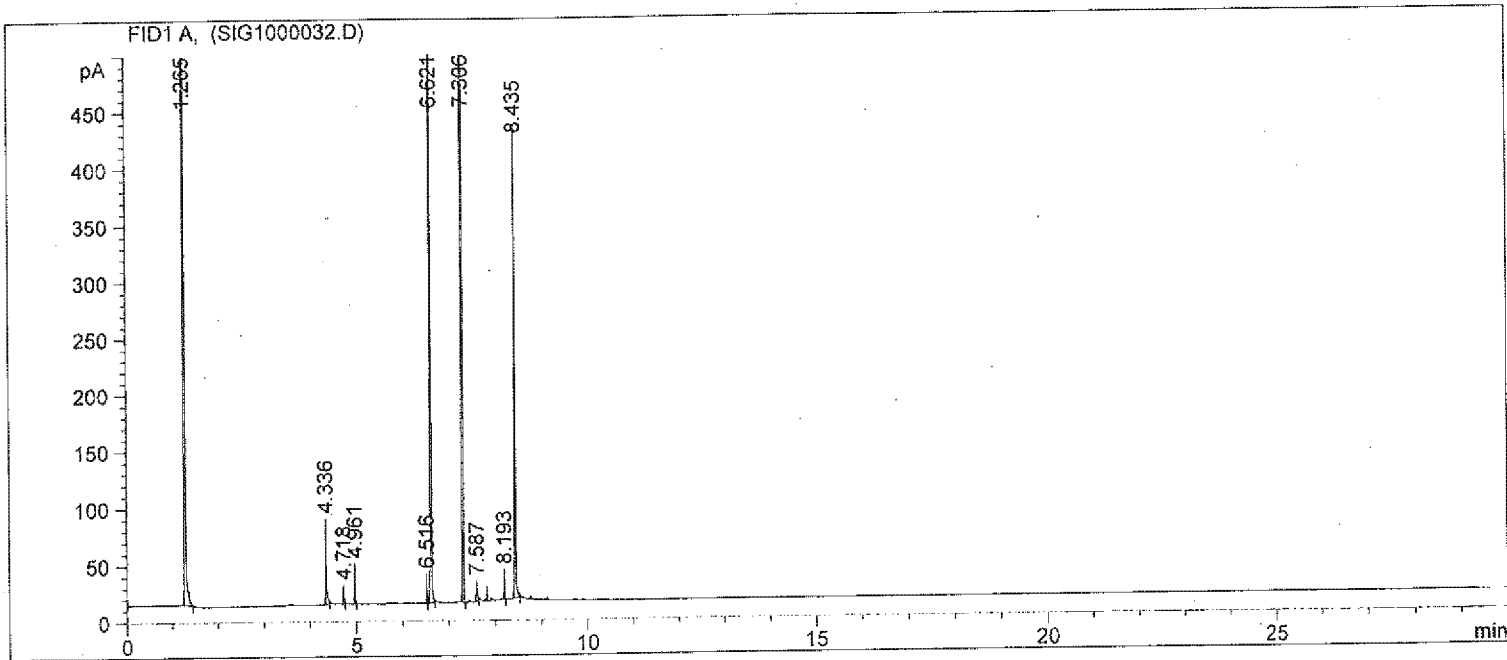
*** End of Report ***

=====

| | | | |
|-----------------|-------------------------|------------|-----------|
| Acq. Operator | : ASD | Seq. Line | : 32 |
| Acq. Instrument | : Drug Lab GC#3 | Location | : Vial 32 |
| Injection Date | : 11/11/2010 7:24:12 AM | Inj | : 1 |
| | | Inj Volume | : 1 µl |

Sequence File : C:\CHEM32\1\SEQUENCE\DEFAULT.S
Method : C:\CHEM32\1\METHODS\SCREEN.M
Last changed : 8/3/2010 11:51:05 AM

=====



=====
Area Percent Report
=====

Sorted By : Retention Time
Multiplier: : 1.0000
Dilution: : 1.0000
Sample Amount: : 1.00000 [ng/ul] (not used in calc.)
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

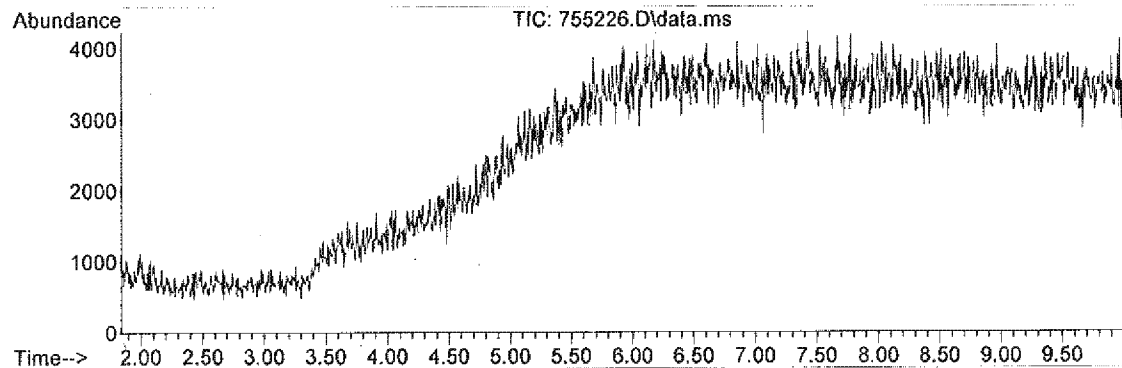
| Peak # | RetTime [min] | Sig | Type | Area [pA*s] | Height [pA] | Area % |
|--------|---------------|-----|------|-------------|-------------|----------|
| 1 | 1.265 | 1 | BB S | 7.53621e4 | 7.61851e4 | 92.77139 |
| 2 | 4.336 | 1 | BB | 99.38223 | 75.05242 | 0.12234 |
| 3 | 4.718 | 1 | BB | 17.90690 | 16.75219 | 0.02204 |
| 4 | 4.961 | 1 | BB | 34.64471 | 35.69565 | 0.04265 |
| 5 | 6.516 | 1 | BB | 20.89819 | 25.80474 | 0.02573 |
| 6 | 6.621 | 1 | BB | 1333.06189 | 860.69098 | 1.64101 |
| 7 | 7.306 | 1 | BB | 3705.14038 | 2843.61914 | 4.56106 |
| 8 | 7.587 | 1 | BB | 27.45032 | 18.14720 | 0.03379 |
| 9 | 8.193 | 1 | BB | 22.99327 | 25.99021 | 0.02830 |
| 10 | 8.435 | 1 | BB | 610.62823 | 405.22009 | 0.75169 |

Totals : 8.12343e4 8.04921e4

✓KAC
10/25/11

Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755226.D
Operator : KAC
Date Acquired : 16 Nov 2010 16:50
Sample Name : BLANK
Submitted by :
Vial Number : 1
AcquisitionMeth: DRUGS.M
Integrator : RTE

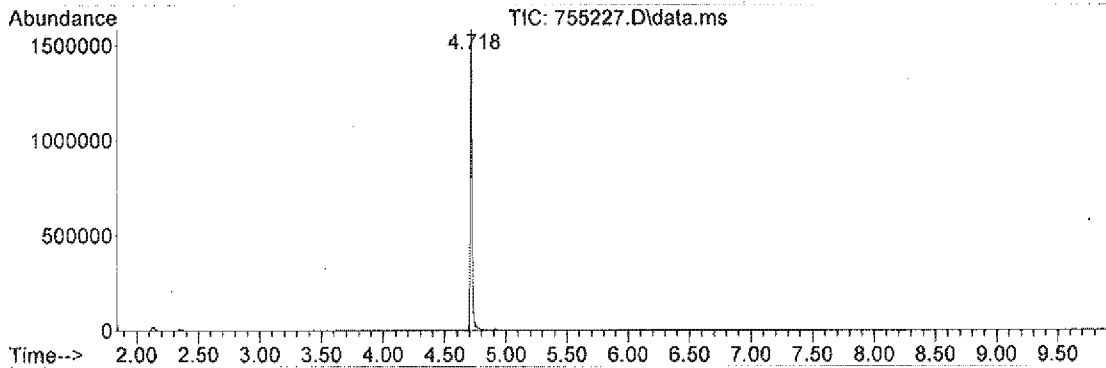


| Ret. Time | Area | Area % | Ratio % |
|-----------|------|--------|---------|
|-----------|------|--------|---------|

NO INTEGRATED PEAKS

Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755227.D
Operator : KAC
Date Acquired : 16 Nov 2010 17:03
Sample Name : COCAINE STD
Submitted by :
Vial Number : 27
AcquisitionMeth: DRUGS.M
Integrator : RTE



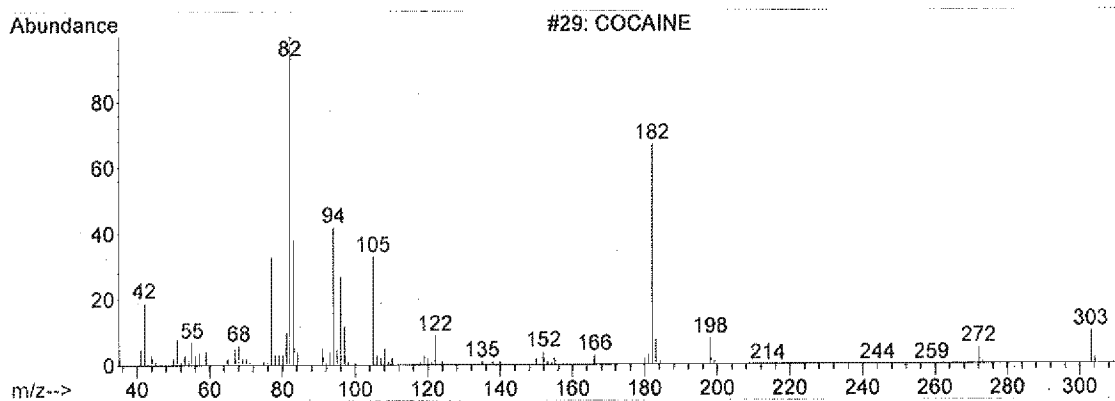
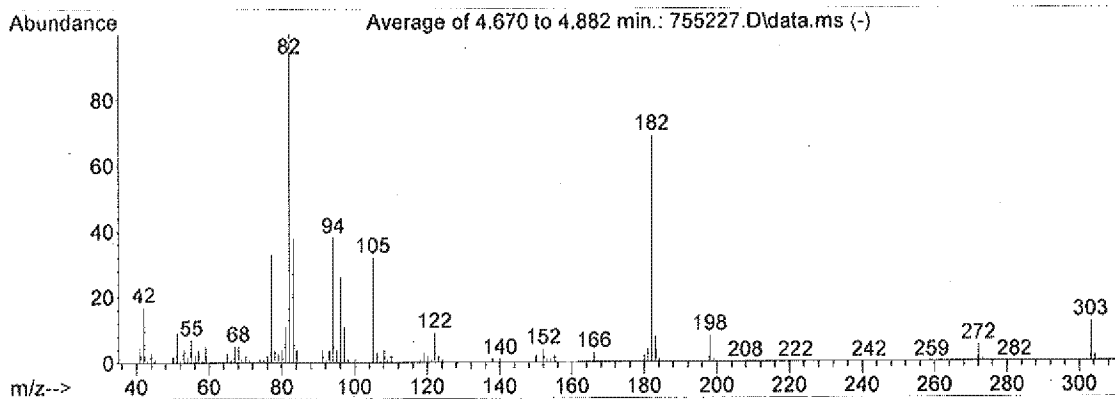
| Ret. Time | Area | Area % | Ratio % |
|-----------|---------|--------|---------|
| 4.718 | 1639070 | 100.00 | 100.00 |

Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755227.D
Operator : KAC
Date Acquired : 16 Nov 2010 17:03
Sample Name : COCAINE STD
Submitted by :
Vial Number : 27
AcquisitionMeth: DRUGS.M
Integrator : RTE

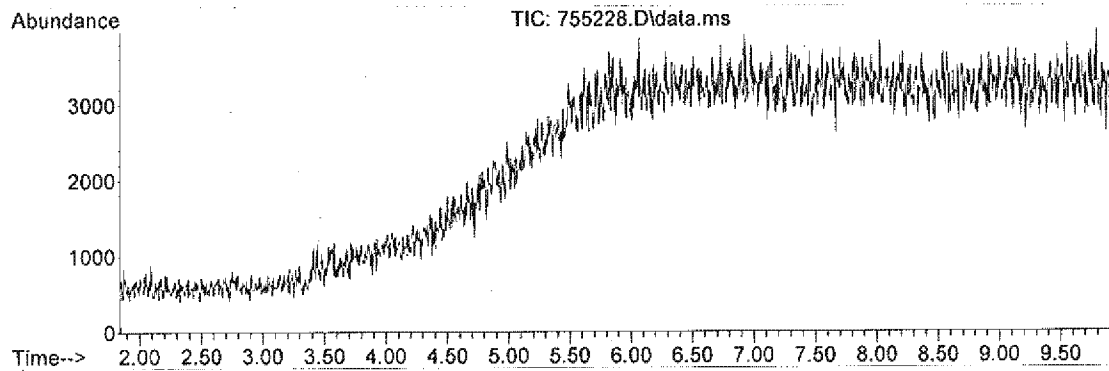
Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST05a.L Minimum Quality: 75
C:\Database\PMW_TOX2.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|------------------------------|-------------|------|
| 1 | 4.72 | C:\Database\SLI.L COCAINE | 000050-36-2 | 99 |



Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755228.D
Operator : KAC
Date Acquired : 16 Nov 2010 17:16
Sample Name : BLANK
Submitted by : ASD
Vial Number : 1
AcquisitionMeth: DRUGS.M
Integrator : RTE

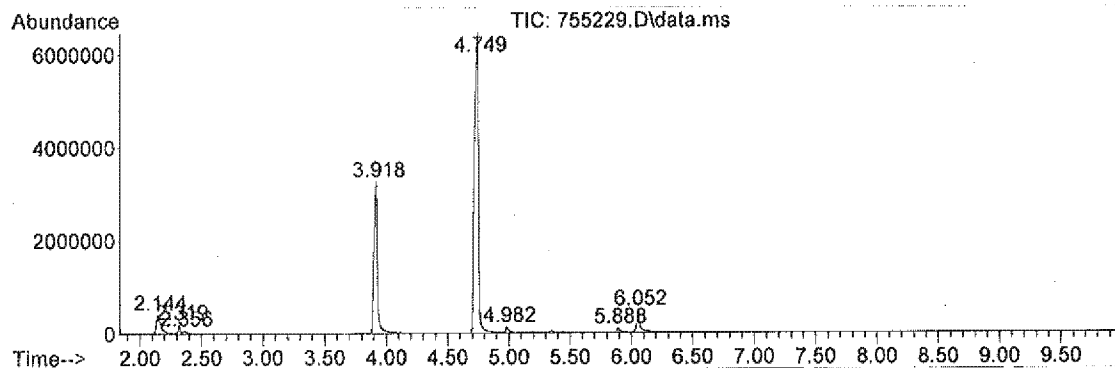


| Ret. Time | Area | Area % | Ratio % |
|-----------|------|--------|---------|
|-----------|------|--------|---------|

NO INTEGRATED PEAKS

Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755229.D
Operator : KAC
Date Acquired : 16 Nov 2010 17:28
Sample Name : XXXXXXXXXX
Submitted by : ASD
Vial Number : 29
AcquisitionMeth: DRUGS.M
Integrator : RTE



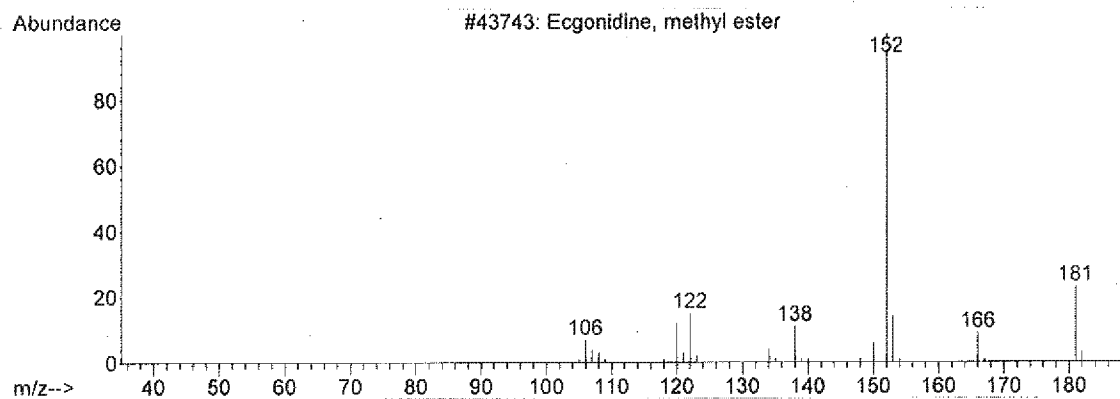
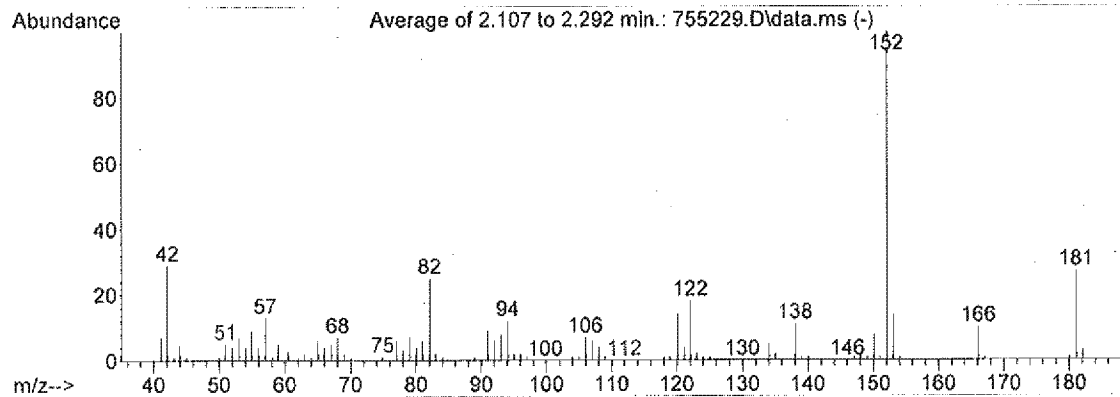
| Ret. Time | Area | Area % | Ratio % |
|-----------|----------|--------|---------|
| 2.144 | 1076165 | 4.45 | 7.33 |
| 2.319 | 207695 | 0.86 | 1.41 |
| 2.356 | 163910 | 0.68 | 1.12 |
| 3.918 | 6723139 | 27.79 | 45.78 |
| 4.749 | 14687016 | 60.72 | 100.00 |
| 4.982 | 192694 | 0.80 | 1.31 |
| 5.888 | 170562 | 0.71 | 1.16 |
| 6.052 | 968036 | 4.00 | 6.59 |

Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755229.D
Operator : KAC
Date Acquired : 16 Nov 2010 17:28
Sample Name : XXXXXXXXXX
Submitted by : ASD
Vial Number : 29
AcquisitionMeth: DRUGS.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST05a.L Minimum Quality: 75
C:\Database\PMW_TOX2.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|-------------------------------------|-------------|------|
| 1 | 2.14 | C:\Database\NIST05a.L | | |
| | | Ecgonidine, methyl ester | 127379-24-2 | 98 |
| | | 2-Carbomethoxy-8-methyl-8-azabicycl | 043021-26-7 | 97 |
| | | 1,4-Benzenediol, 2,3,5-trimethyl- | 000700-13-0 | 43 |

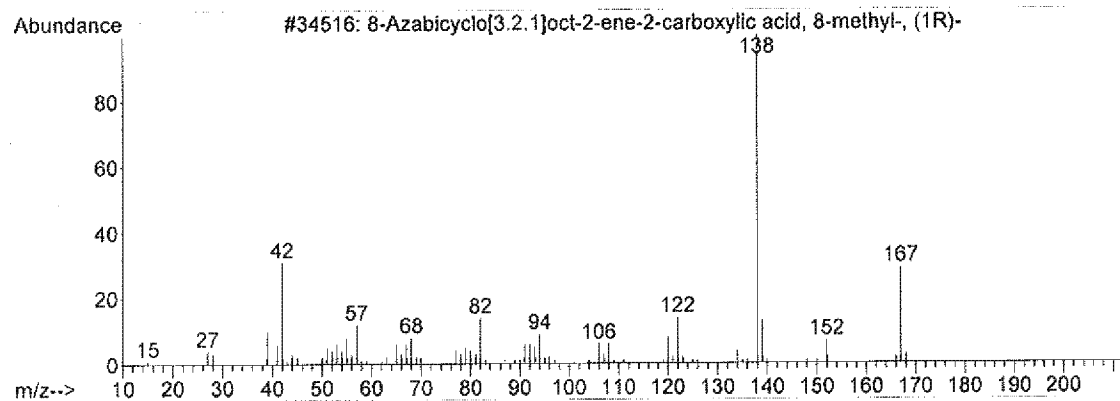
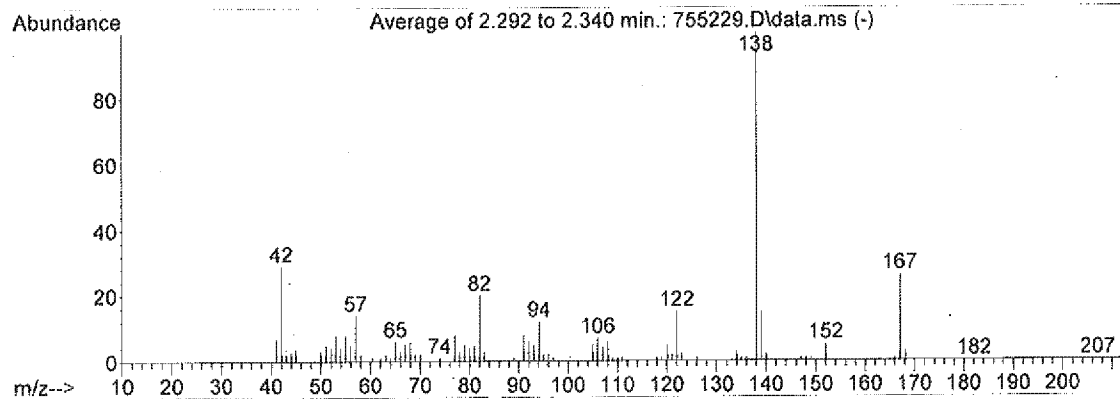


Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755229.D
Operator : KAC
Date Acquired : 16 Nov 2010 17:28
Sample Name : XXXXXXXXXX
Submitted by : ASD
Vial Number : 29
AcquisitionMeth: DRUGS.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST05a.L Minimum Quality: 75
C:\Database\PMW_TOX2.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|-------------------------------------|--------------|------|
| 2 | 2.32 | C:\Database\NIST05a.L | | |
| | | 8-Azabicyclo[3.2.1]oct-2-ene-2-carb | 000484-93-5 | 94 |
| | | Benzeneethanamine, 3-hydroxy-4-meth | 003213-30-7 | 53 |
| | | Methyl pinidine | 1000116-09-2 | 42 |

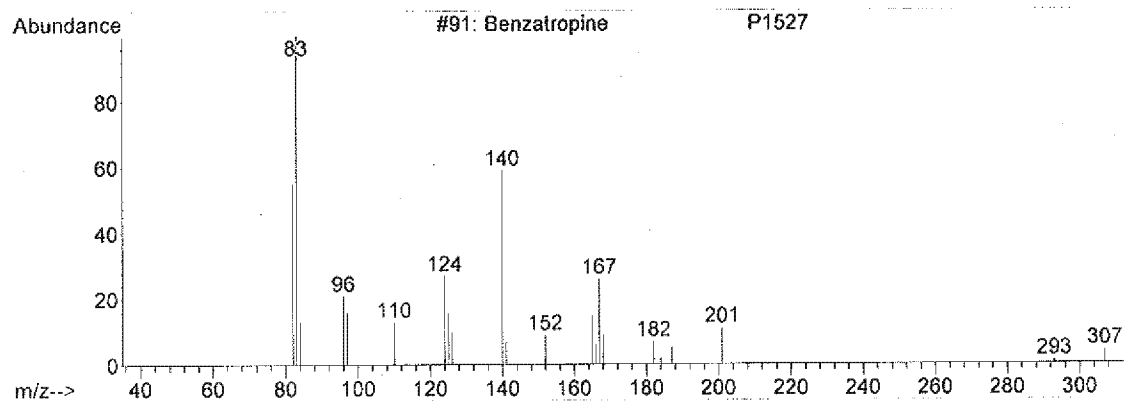
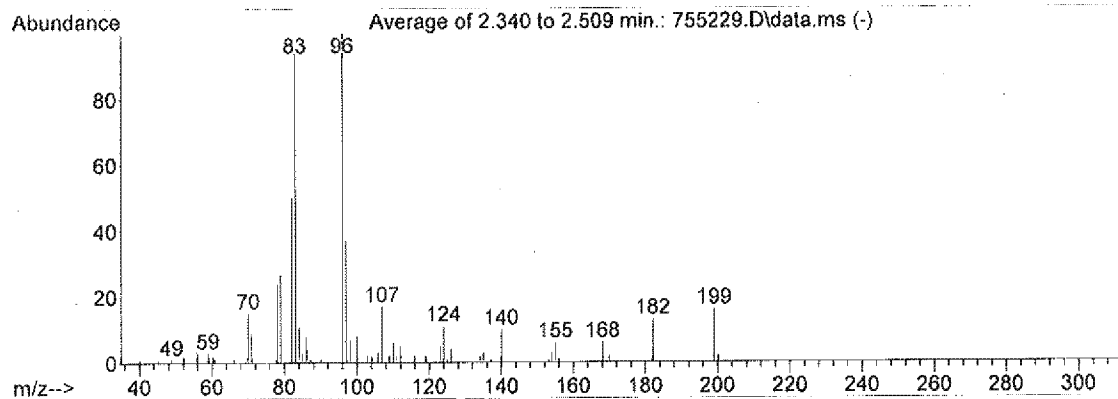


Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755229.D
Operator : KAC
Date Acquired : 16 Nov 2010 17:28
Sample Name : XXXXXXXXXX
Submitted by : ASD
Vial Number : 29
AcquisitionMeth: DRUGS.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST05a.L Minimum Quality: 75
C:\Database\PMW_TOX2.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|------------------------|-------------|------|
| 3 | 2.36 | C:\Database\PMW_TOX2.L | | |
| | | Benzatropine | 000086-13-5 | 9 |
| | | Tilidine-M (nor-) | 038677-94-0 | 9 |
| | | Lobeline artifact | 000000-00-0 | 2 |

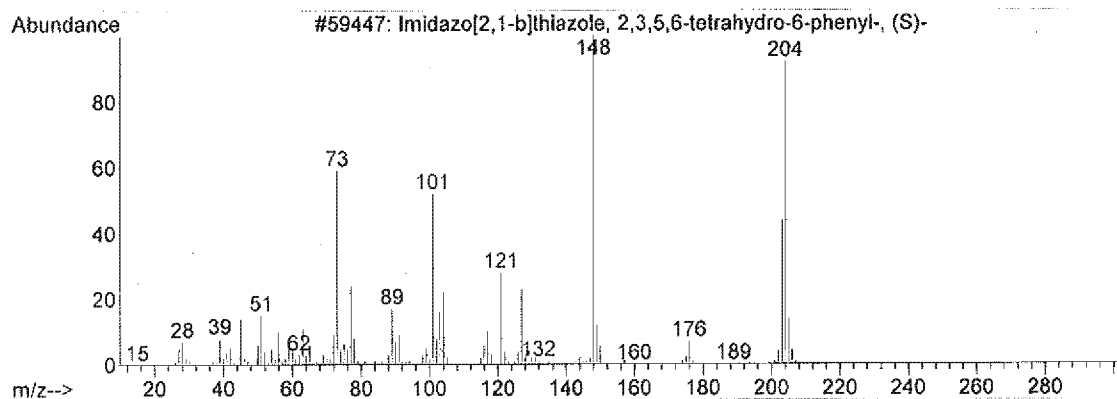
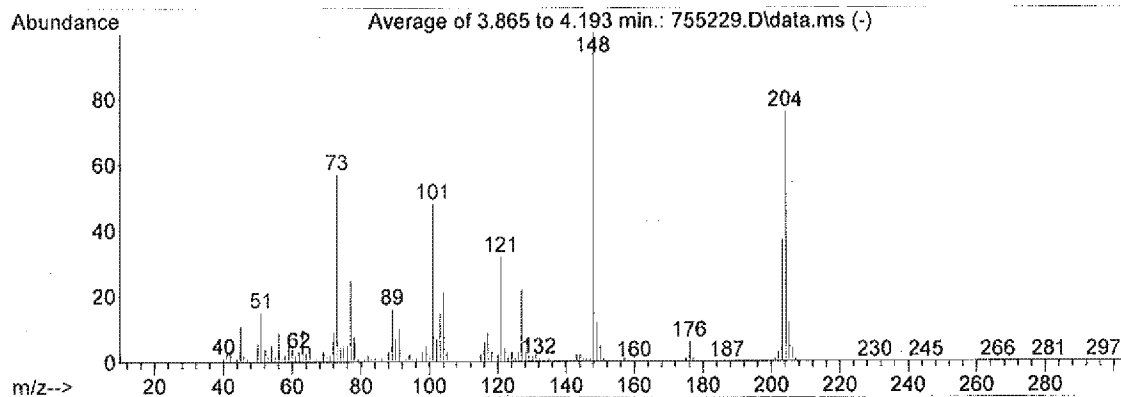


Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755229.D
Operator : KAC
Date Acquired : 16 Nov 2010 17:28
Sample Name : XXXXXXXXXX
Submitted by : ASD
Vial Number : 29
AcquisitionMeth: DRUGS.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST05a.L Minimum Quality: 75
C:\Database\PMW_TOX2.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|-------------------------------------|-------------|------|
| 4 | 3.92 | C:\Database\NIST05a.L | | |
| | | Imidazo[2,1-b]thiazole, 2,3,5,6-tet | 014769-73-4 | 99 |
| | | Imidazo[2,1-b]thiazole, 2,3,5,6-tet | 014769-73-4 | 99 |
| | | Imidazo[2,1-b]thiazole, 2,3,5,6-tet | 006649-23-6 | 98 |

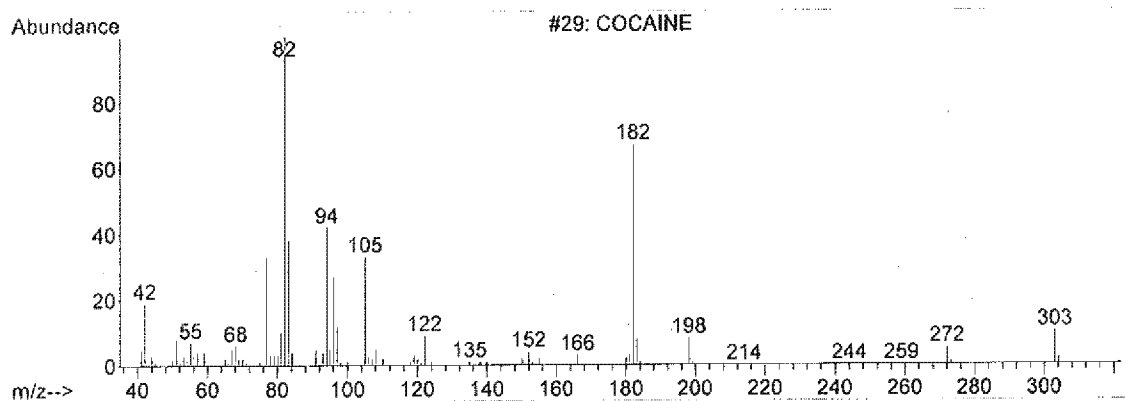
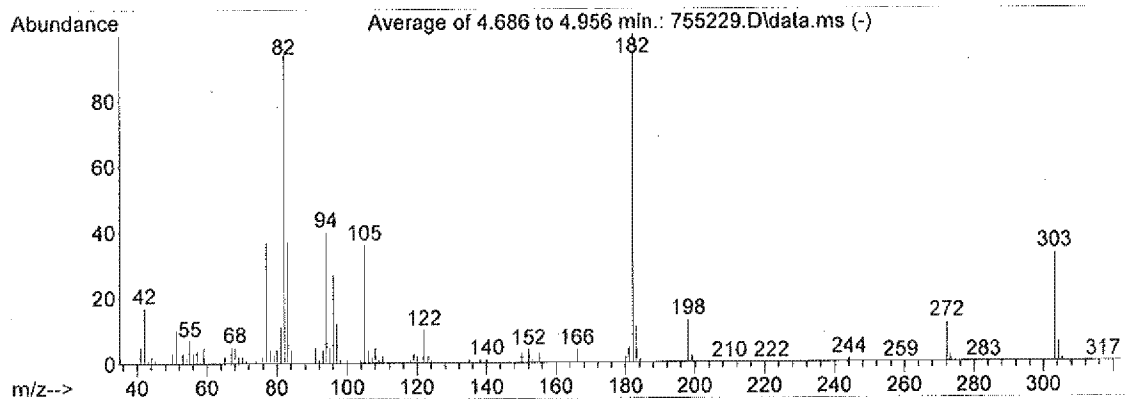


Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755229.D
Operator : KAC
Date Acquired : 16 Nov 2010 17:28
Sample Name : XXXXXXXXXX
Submitted by : ASD
Vial Number : 29
AcquisitionMeth: DRUGS.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST05a.L Minimum Quality: 75
C:\Database\PMW_TOX2.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|------------------------------|-------------|------|
| 5 | 4.75 | C:\Database\SLI.L COCAINE | 000050-36-2 | 99 |

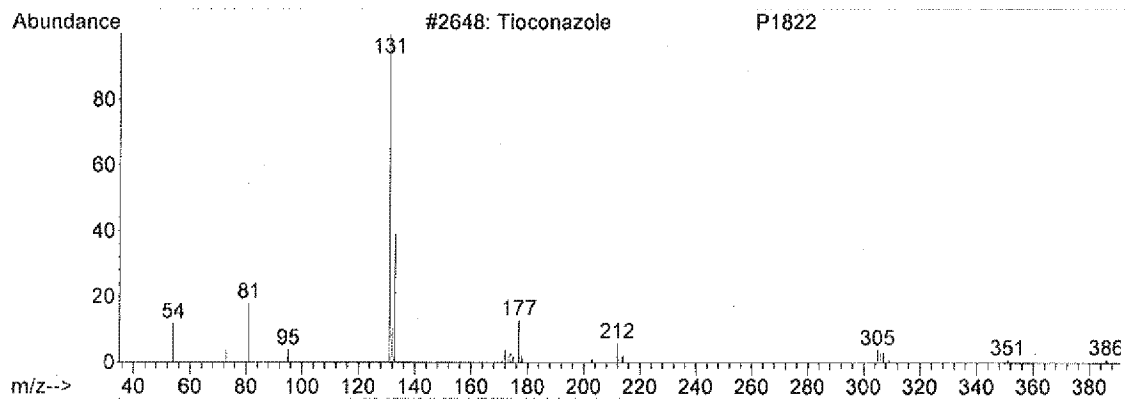
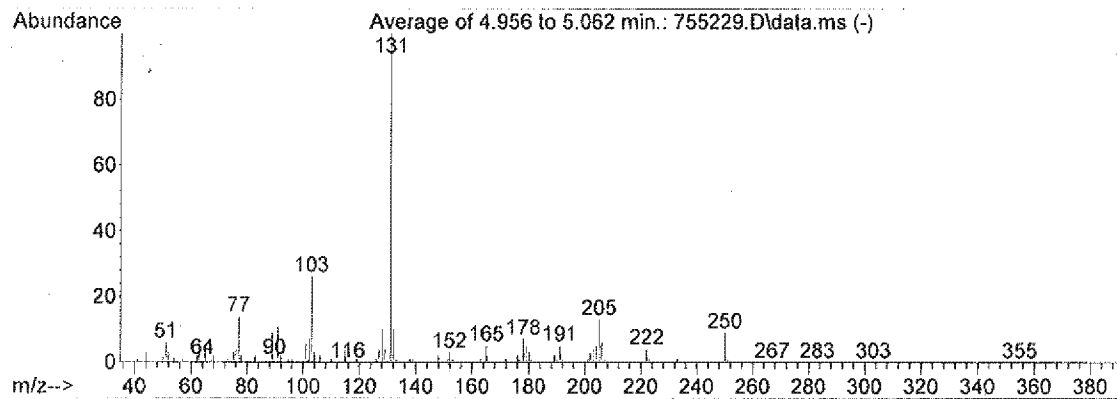


Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755229.D
Operator : KAC
Date Acquired : 16 Nov 2010 17:28
Sample Name : XXXXXXXXXX
Submitted by : ASD
Vial Number : 29
AcquisitionMeth: DRUGS.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST05a.L Minimum Quality: 75
C:\Database\PMW_TOX2.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|---------------------------------------|-------------|------|
| 6 | 4.98 | C:\Database\PMW_TOX2.L Tioconazole | 065899-73-2 | 1 |

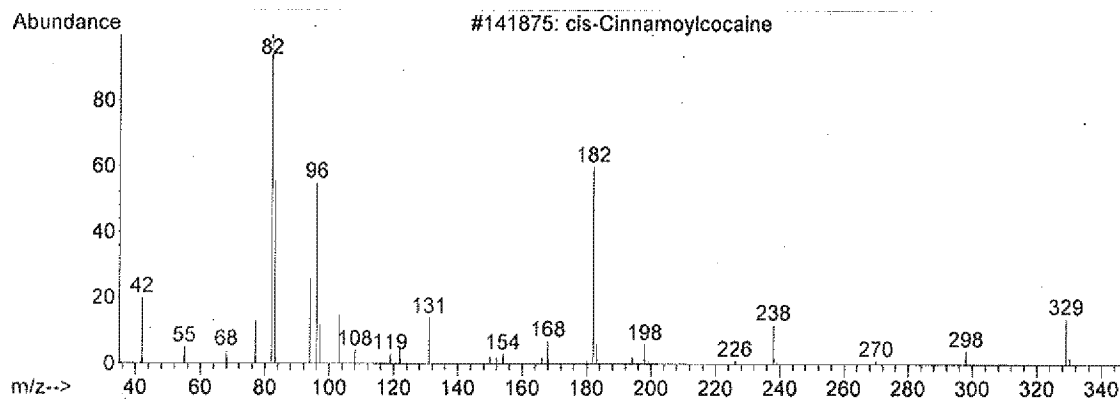
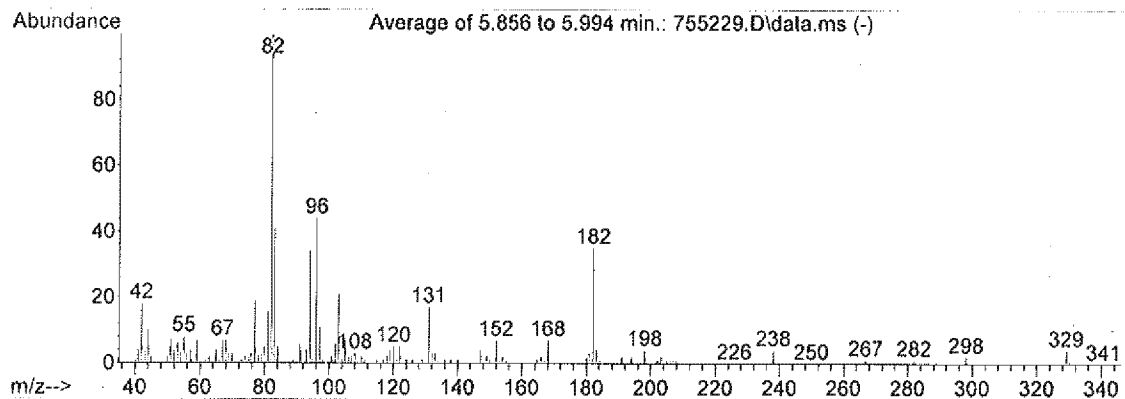


Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755229.D
Operator : KAC
Date Acquired : 16 Nov 2010 17:28
Sample Name : XXXXXXXXXX
Submitted by : ASD
Vial Number : 29
AcquisitionMeth: DRUGS.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST05a.L Minimum Quality: 75
C:\Database\PMW_TOX2.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|-----------------------------|--------------|------|
| 7 | 5.89 | C:\Database\NIST05a.L | | |
| | | cis-Cinnamoylcocaine | 000521-67-5 | 98 |
| | | Cinnamoylcocaine | 1000247-78-7 | 87 |
| | | Acetoxycgonine methyl ester | 203320-36-9 | 59 |

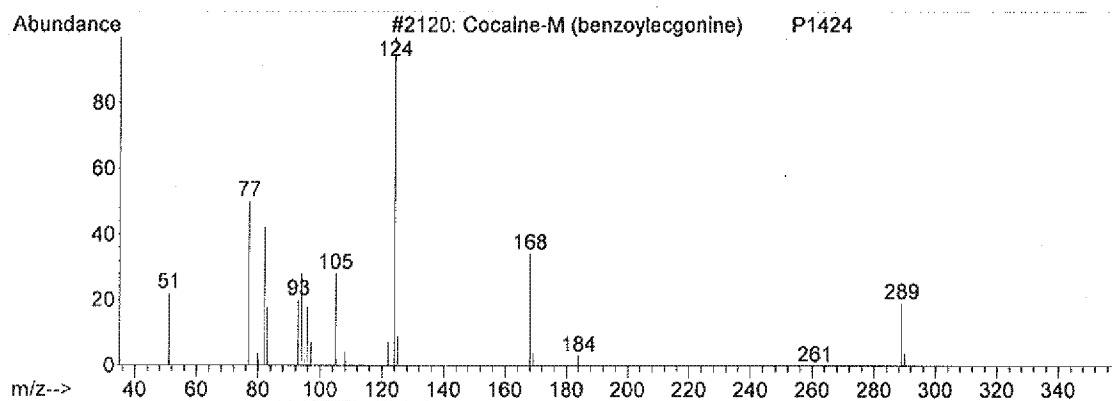
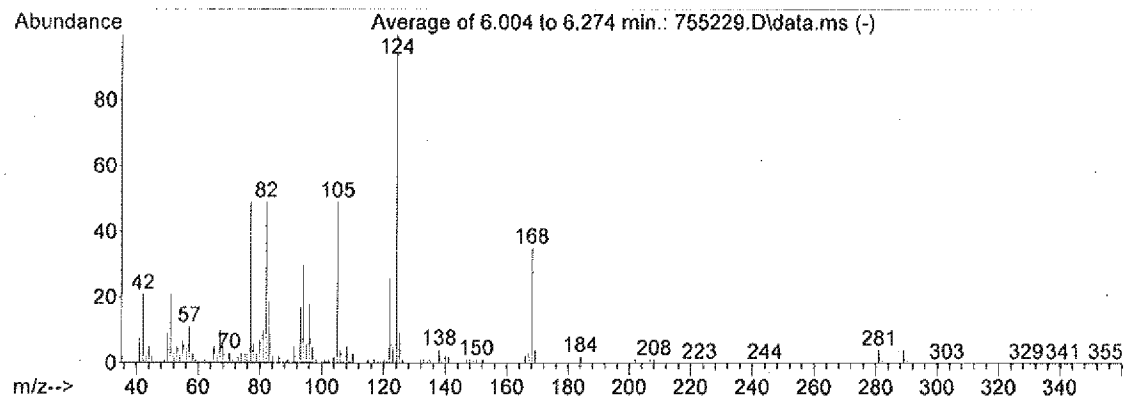


Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755229.D
Operator : KAC
Date Acquired : 16 Nov 2010 17:28
Sample Name : XXXXXXXXXX
Submitted by : ASD
Vial Number : 29
AcquisitionMeth: DRUGS.M
Integrator : RTE

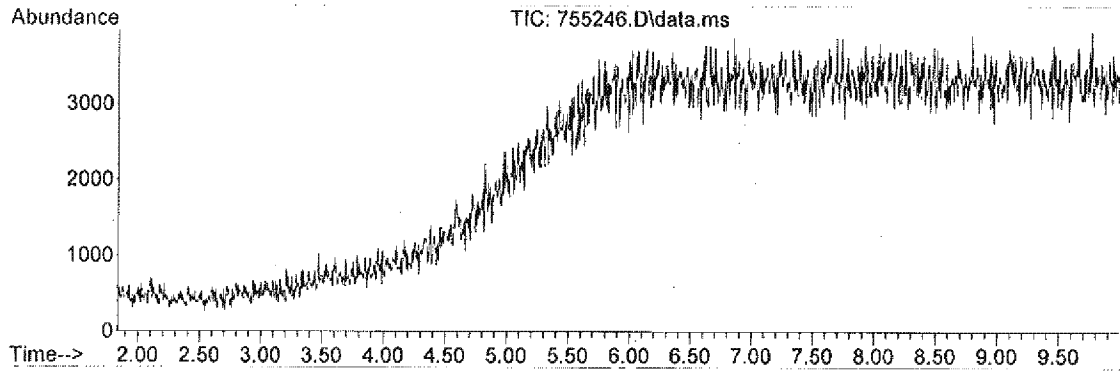
Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST05a.L Minimum Quality: 75
C:\Database\PMW_TOX2.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|-----------------------------|-------------|------|
| 8 | 6.05 | C:\Database\PMW_TOX2.L | | |
| | | Cocaine-M (benzoylecgonine) | 000519-09-5 | 96 |
| | | Mequitazine-M (sulfone) | 000000-00-0 | 9 |
| | | DOM precursor-2 AC | 000000-00-0 | 9 |



Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755246.D
Operator : KAC
Date Acquired : 16 Nov 2010 21:03
Sample Name : BLANK
Submitted by :
Vial Number : 1
AcquisitionMeth: DRUGS.M
Integrator : RTE

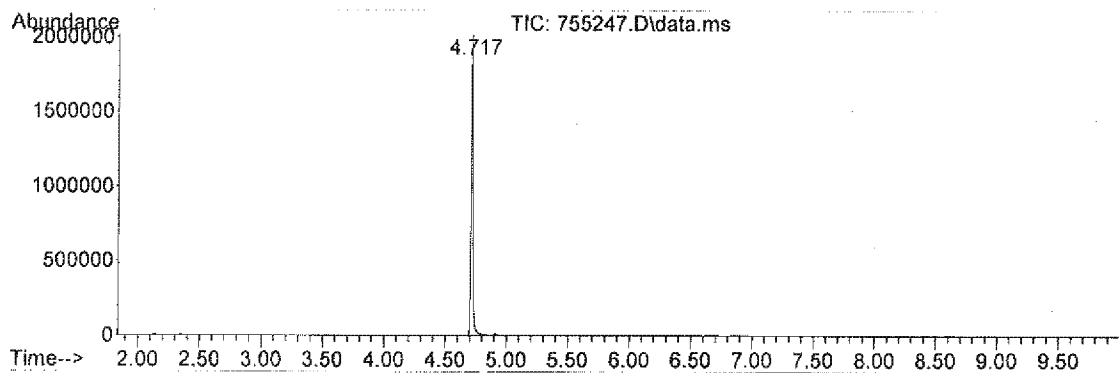


| Ret. Time | Area | Area % | Ratio % |
|-----------|------|--------|---------|
|-----------|------|--------|---------|

NO INTEGRATED PEAKS

Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755247.D
Operator : KAC
Date Acquired : 16 Nov 2010 21:15
Sample Name : COCAINE STD
Submitted by :
Vial Number : 47
AcquisitionMeth: DRUGS.M
Integrator : RTE



| Ret. Time | Area | Area % | Ratio % |
|-----------|------|--------|---------|
|-----------|------|--------|---------|

| | | | |
|-------|---------|--------|--------|
| 4.717 | 2086054 | 100.00 | 100.00 |
|-------|---------|--------|--------|

Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11_16_10\755247.D
Operator : KAC
Date Acquired : 16 Nov 2010 21:15
Sample Name : COCAINE STD
Submitted by :
Vial Number : 47
AcquisitionMeth: DRUGS.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80
C:\Database\NIST05a.L Minimum Quality: 75
C:\Database\PMW_TOX2.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|------------------------------|-------------|------|
| 1 | 4.72 | C:\Database\SLI.L COCAINE | 000050-36-2 | 99 |

